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Presentation Type: Oral Presentation

Project Title: Analyzing Driving Behaviour Using Driving Simulator and Virtual Reality with Continuous Flow Intersection

Synopsis: Understanding conventional intersections with a Driving Simulator.

Abstract: The demand to improve modes of transportation are constantly growing. This high demand probes the need to improve our signalized intersections in order to increase capacity, decrease congestion, and minimize cost. Many ideas such as adding additional lanes for straight through and left turning movements are presented but do not offer a solution for future congestion as the population continues to increase. There are many alternatives to improve these current issues, one in particular is the Continuous Flow Intersection (CFI), also known as Displaced Left Turn (DLT). It has gained popularity because of the improvements it can bring in Level of Service (LOS) and the reduction of signal phases. CFI is a design to accommodate these issues for future signalized intersections. To understand the impact of this new intersection in our local community we will be using a driving simulator integrated with virtual reality (VR) to test behavior and adaptability of students. This study will also use software to better understand the LOS of this CFI.